

IN THE CLAIMS:

Please amend the claims as follows:

1. **(Currently Amended)** An on-board antenna comprising:

a radiation element provided on a dielectric substrate; and

a grounding conductor surrounding a periphery of an outer edge portion of the radiation element at a position spaced away outwardly from the outer edge portion; and

an inner cut-out portion completely surrounded by an inner periphery of the radiation element,

wherein an entire inner area defined by an outer boundary of the radiation element has an inner cut-out portion so that the exposes surface of the dielectric substrate to be exposed therethrough, and

wherein the radiation element and the grounding conductor are provided on the same surface of the dielectric substrate.

2. **(Previously Presented).** An on-board antenna as set forth in Claim 1, wherein the radiation element is a substantially quadrangular film having two pairs of opposing corner portions, and wherein one pair of the opposing corner portions is cut to form substantially linear perturbative portions

3. **(Original)** An on-board antenna as set forth in Claim 1, wherein the radiation element is circular-shape having a predetermined width.

4. **(Original)** An on-board antenna as set forth in Claim 1, wherein an inner edge portion of the inner cut-out portion follows an outer edge portion of the radiation element at a position spaced away inwardly a predetermined widthwise distance from the outer edge portion of the radiation element.

5. **(Original)** An on-board antenna as set forth in Claim 1, wherein an external size of the on-board antenna with the inner cut-out portion is smaller than that of an on-board antenna without the inner cut-out portion.

6. **(Original)** An on-board antenna as set forth in Claim 1, wherein the radiation element is a semiconductor.

7. **(New)** An on-board antenna comprising:
a radiation element provided on a dielectric substrate; and
a grounding conductor surrounding a periphery of an outer edge portion of the radiation element at a position spaced away outwardly from the outer edge portion;
wherein the radiation element has an inner cut-out portion exposing the dielectric substrate therethrough,
wherein the radiation element and the grounding conductor are provided on the same surface of the dielectric substrate,
wherein the radiation element is a substantially quadrangular film having two pairs of opposing corner portions, and
wherein one pair of the opposing corner portions is cut to form substantially linear perturbative portions

8. **(New)** An on-board antenna as set forth in Claim 7, wherein the radiation element is circular-shape having a predetermined width.

9. **(New)** An on-board antenna as set forth in Claim 7, wherein an inner edge portion of the inner cut-out portion follows an outer edge portion of the radiation element at a position spaced away inwardly a predetermined widthwise distance from the outer edge portion of the radiation element.

10. **(New)** An on-board antenna as set forth in Claim 7, wherein an external size of the on-board antenna with the inner cut-out portion is smaller than that of an on-board antenna without the inner cut-out portion.

11. **(New)** An on-board antenna as set forth in Claim 7, wherein the radiation element is a semiconductor.